

WEST Search History

Hide Items

Restore

Clear

Cancel

DATE: Tuesday, December 07, 2004

Hide? **Set Name** **Query**

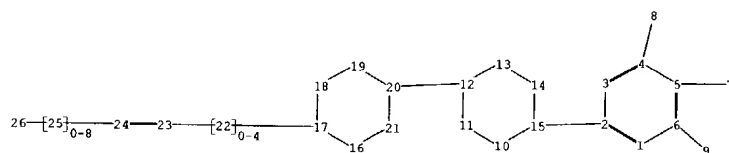
Hit Count

DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ

☐ L1 jp-2003268372-\$.did. or jp-2003003169-\$.did. or de-10220549-\$.did.

6

END OF SEARCH HISTORY



chain nodes :

7 8 9 22 23 24 25 26

ring nodes :

1 2 3 4 5 6 10 11 12 13 14 15 16 17 18 19 20 21

chain bonds :

2-15 4-8 5-7 6-9 12-20 17-22 22-23 23-24 24-25 25-26

ring bonds :

1-2	1-6	2-3	3-4	4-5	5-6	10-11	10-15	11-12	12-13	13-14	14-15
16-17	16-21	17-18	18-19	19-20	20-21						

exact/norm bonds :

[illegible]

exact bonds :

2-15 4-8 5-7 6-9 12-20 17-22 22-23 23-24 24-25 25-26

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

```
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS
```

1:Atom	2:Atom	3:Atom	4:Atom	5:Atom	6:Atom	7:CLASS	8:CLASS	9:CLASS
10:Atom	11:Atom	12:Atom	13:Atom	14:Atom	15:Atom	16:Atom	17:Atom	
18:Atom	19:Atom	20:Atom	21:Atom	22:Atom	23:Atom	24:Atom	25:Atom	26:Atom

```

18:Atom    19:Atom    20:Atom    21:Atom    22:CLASS    23:CLASS    24:CLASS    25:CLASS
26:CLASS

```

26: CLASS

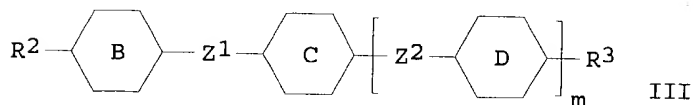
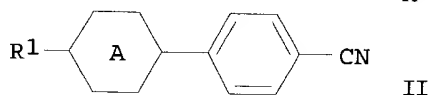
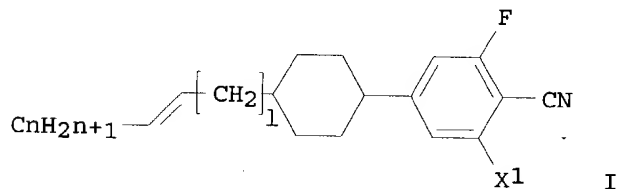
L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:750981 CAPLUS
 DN 139:268115
 ED Entered STN: 25 Sep 2003
 TI Nematic liquid crystal compositions and liquid crystal displays
 IN Kuriyama, Takeshi
 PA Dainippon Ink and Chemicals, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C09K019-42
 ICS C09K019-12; C09K019-14; C09K019-20; C09K019-24; C09K019-30;
 C09K019-34; G02F001-13; G02F001-133; G02F001-139
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 75
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003268372	A2	20030925	JP 2002-76085	20020319
PRAI JP 2002-76085		20020319		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003268372	ICM	C09K019-42
	ICS	C09K019-12; C09K019-14; C09K019-20; C09K019-24; C09K019-30; C09K019-34; G02F001-13; G02F001-133; G02F001-139

OS MARPAT 139:268115
 GI



AB Liquid crystal compns. containing (1) I (1, n = 0-10; X1 = H, F), (2) II (R1 = C2-8 alkyl, alkoxyl, alkenyl, alkenyloxy; A = 2,5-pyrimidinedyl, 2,5-pyridinedyl), and (3) III (R2-3 = (F-substituted) C1-8 alkyl, C1-8 alkoxyl, C2-8 alkenyl, C3-8 alkenyloxy; B, C, D = 1,6-C6H10, 1,6-C6H2X2X3; X2-3 = H, F, Me; Z1-2 = CO2, OCO, C2H4, OCH2, CH2O, CH:CH, CF:CF, CH:NN:CH, C.tplbond.C; m = 0, 1) and having nematic phase-isotropic liquid phase transition temperature (TN-I) 70-180° and refractive index anisotropy (Δn) 0.06-0.30 are claimed. Also claimed is displays using the claimed liquid crystal compns. The compns. show prevented image burn and steep voltage-transmission characteristics.
 ST nematic liq crystal compn display; cyanophenylcyclohexane liq crystal compn; cyanofluorophenyl alkenyl cyclohexane liq crystal compn
 IT Liquid crystal displays

(nematic liquid crystal compns. and liquid crystal displays free of image burn)

IT Liquid crystals

(nematic; nematic liquid crystal compns. and liquid crystal displays free of image burn)

IT 59854-97-6 59855-03-7 59855-05-9 85583-83-1 86776-50-3
86776-51-4 86776-52-5 88038-92-0 107949-21-3 107949-22-4
126702-59-8 128060-75-3 129738-34-7 129738-42-7 155041-85-3
157453-50-4 157453-54-8 184652-93-5 337366-98-0 477557-84-9

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(liquid crystal compns. containing; nematic liquid crystal compns. and liquid crystal displays free of image burn)

IT 477557-84-9

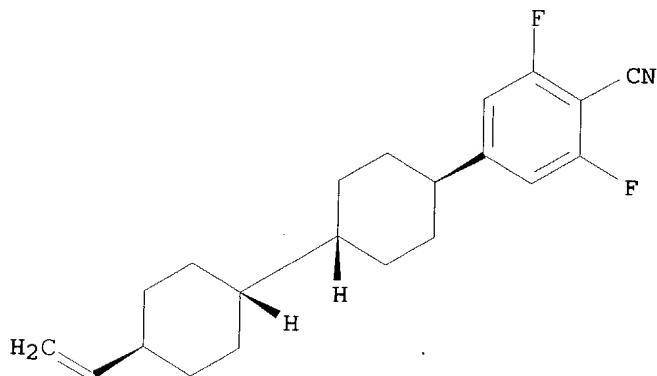
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(liquid crystal compns. containing; nematic liquid crystal compns. and liquid crystal displays free of image burn)

RN 477557-84-9 CAPLUS

CN Benzonitrile, 4-[(trans,trans)-4'-ethenyl[1,1'-bicyclohexyl]-4-yl]-2,6-difluoro- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:17385 CAPLUS

DN 138:80812

ED Entered STN: 09 Jan 2003

TI Nematic liquid crystal compositions and liquid crystal displays (LCD) giving high-contrast images at wide temperature ranges

IN Kuriyama, Takeshi; Takeuchi, Kiyofumi

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09K019-46

ICS C09K019-12; C09K019-14; C09K019-18; C09K019-20; C09K019-30;
G02F001-13

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 75

FAN.CNT 1

PATENT NO.

KIND

DATE

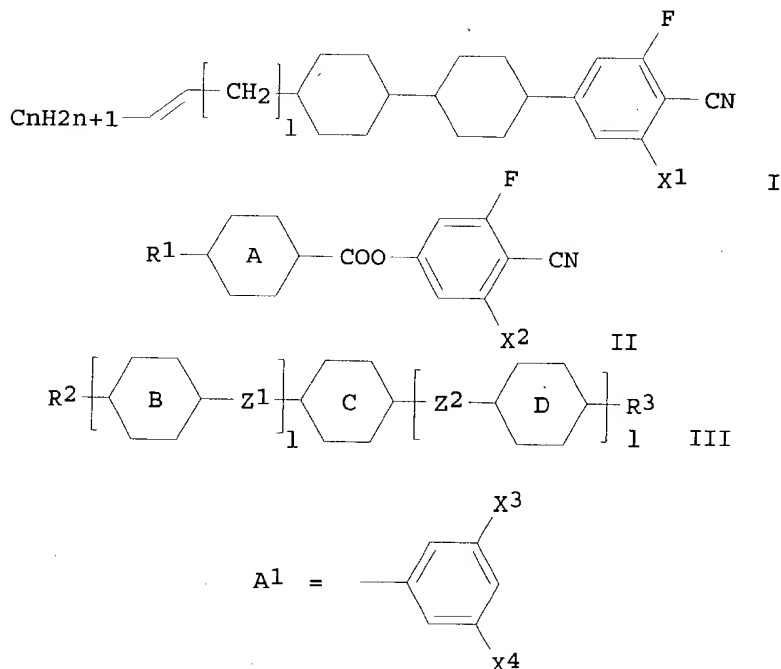
APPLICATION NO.

DATE

PI JP 2003003169 A2 20030108 JP 2001-189541 20010622
 PRAI JP 2001-189541 20010622
 CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003003169	ICM	C09K019-46
	ICS	C09K019-12; C09K019-14; C09K019-18; C09K019-20; C09K019-30; G02F001-13

OS MARPAT 138:80812
 GI



- AB The comps. have nematic-isotropic transition point (TN-I) 70-180°, have refractive index anisotropy (Δn) 0.06-0.30, and contain (1) ≥ 1 of I ($X_1 = H, F$; $1, n = 0-10$) (2) ≥ 1 of II ($R_1 = C_2-8$ alkyl, alkoxy, alkenyl, alkenyloxy; $A = 1,4-C_6H_6, A_1$; $X_{2-4} = H, F$) and (3) ≥ 1 of III ($R_{2-3} = C_1-8$ alkyl, C_1-8 alkoxy, C_2-8 alkenyl, or C_3-8 alkenyloxy optionally having fluorine substitution; $B, C, D = 1,4-C_6H_6, A_2$; $X_{5-6} = H, F, Me$; $Z_{1-2} = \text{single bond, } CO_2, C_2H_4, CH:CH, CF:CF, C.tplbond.C$; $i, j = 0, 1$; $i + j = 1, 2$). LCD comprising the comps., especially super-twisted nematic LCD of twist angle 180-270°, is also claimed.
- ST nematic liq crystal compn; STN liq crystal display compn
- IT Liquid crystal displays
 (nematic liq crystal composition containing; nematic liquid crystal comps. for STN-LCD giving high-contrast images at wide temperature ranges)
- IT Liquid crystals
 (nematic; super-twisted; nematic liquid crystal comps. for STN-LCD giving high-contrast images at wide temperature ranges)
- IT Liquid crystals
 (nematic; nematic liquid crystal comps. for STN-LCD giving high-contrast images at wide temperature ranges)
- IT 39969-28-3 61203-99-4 80944-44-1 85583-83-1 86776-50-3
 86776-51-4 86776-52-5 88038-92-0 107949-21-3 107949-22-4

111336-21-1 115978-59-1 123843-69-6 123843-78-7 128060-75-3
222725-48-6 330207-83-5 482373-31-9 482373-35-3 482373-36-4
482373-37-5 482373-38-6 482373-39-7

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(nematic liq crystal composition containing; nematic liquid crystal compns.

for

STN-LCD giving high-contrast images at wide temperature ranges)

IT 157453-52-6 169152-36-7 477557-84-9 482373-40-0

482373-41-1 482373-42-2 482373-43-3

RL: TEM (Technical or engineered material use); USES (Uses)

(nematic liq crystal composition containing; nematic liquid crystal compns.

for

STN-LCD giving high-contrast images at wide temperature ranges)

IT 482373-38-6

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(nematic liq crystal composition containing; nematic liquid crystal compns.

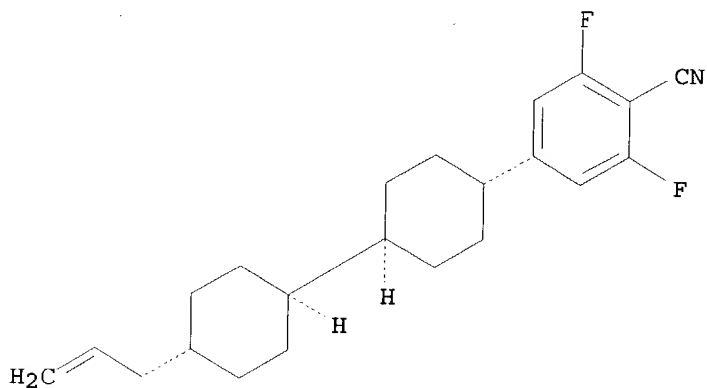
for

STN-LCD giving high-contrast images at wide temperature ranges)

RN 482373-38-6 CAPLUS

CN Benzonitrile, 2,6-difluoro-4-[(trans,trans)-4'-(2-propenyl)[1,1'-bicyclohexyl]-4-yl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 477557-84-9 482373-40-0 482373-41-1
482373-43-3

RL: TEM (Technical or engineered material use); USES (Uses)

(nematic liq crystal composition containing; nematic liquid crystal compns.

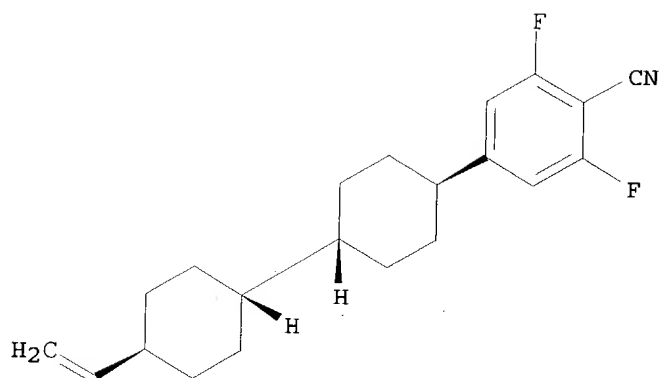
for

STN-LCD giving high-contrast images at wide temperature ranges)

RN 477557-84-9 CAPLUS

CN Benzonitrile, 4-[(trans,trans)-4'-ethenyl[1,1'-bicyclohexyl]-4-yl]-2,6-difluoro- (9CI) (CA INDEX NAME)

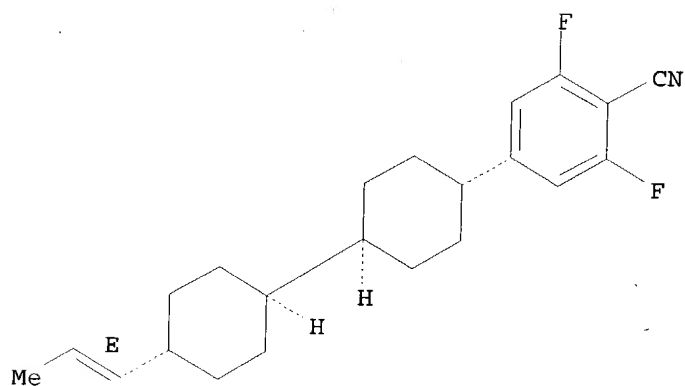
Relative stereochemistry.



RN 482373-40-0 CAPLUS

CN Benzonitrile, 2,6-difluoro-4-[(trans,trans)-4'-(1E)-1-propenyl[1,1'-bicyclohexyl]-4-yl]- (9CI) (CA INDEX NAME)

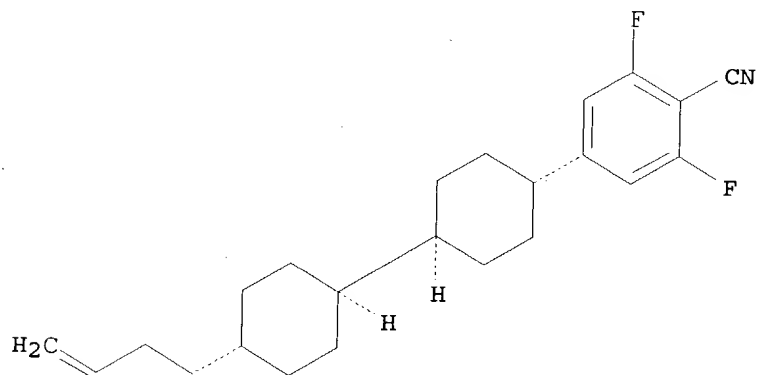
Relative stereochemistry.
Double bond geometry as shown.



RN 482373-41-1 CAPLUS

CN Benzonitrile, 4-[(trans,trans)-4'-(3-butenyl)[1,1'-bicyclohexyl]-4-yl]-2,6-difluoro- (9CI) (CA INDEX NAME)

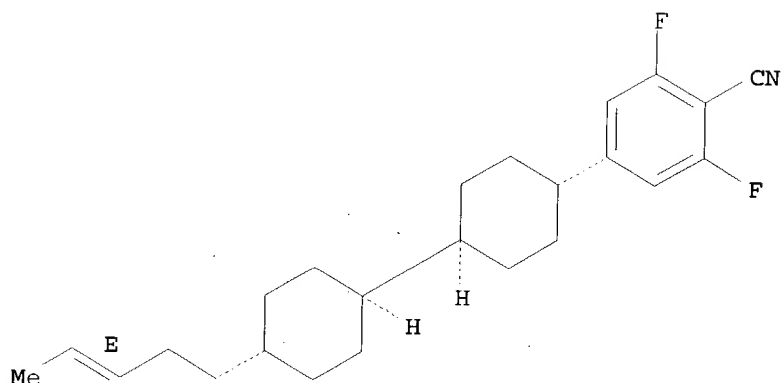
Relative stereochemistry.



RN 482373-43-3 CAPLUS

CN Benzonitrile, 2,6-difluoro-4-[(trans,trans)-4'-(3E)-3-pentenyl[1,1'-bicyclohexyl]-4-yl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:924311 CAPLUS
DN 138:13926
ED Entered STN: 05 Dec 2002
TI Procedure for the production of polycyclic compounds
PA Merck Patent GmbH, Germany
SO Ger. Offen., 22 pp.
CODEN: GWXXBX

DT Patent
LA German

IC ICM C07F013-00

ICS C07F003-06; C07F003-02; C07C025-18; C07C025-24; C07C013-28;
C07C001-26; C07C255-49; C07B049-00; C07B037-04; C07D521-00

CC 24-5 (Alicyclic Compounds)

Section cross-reference(s): 75

FAN.CNT 1

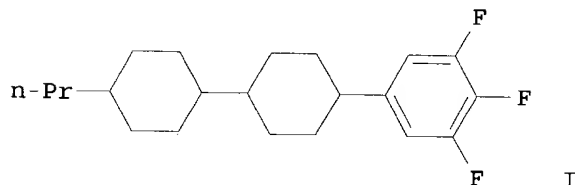
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10220549	A1	20021205	DE 2002-10220549	20020508
PRAI DE 2001-10125633	A1	20010525		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10220549	ICM	C07F013-00
	ICS	C07F003-06; C07F003-02; C07C025-18; C07C025-24; C07C013-28; C07C001-26; C07C255-49; C07B049-00; C07B037-04; C07D521-00

OS MARPAT 138:13926

GI



AB Polycyclic compds. R1AkZ1mA1EnQo(Z2A2)pr2 [R1 = H, halogen,
(un)substituted alkyl; R2 = H, halogen, CN, NCS, SF5, (un)substituted

alkyl, NH₂, CO₂H; A = (un)substituted 1,4-cyclohexanediyl, 1,4-oxacyclohexanediyl, 1,4-thiacyclohexanediyl, 1,4-cyclohexenediyl, 1,4-bicyclo[2.2.2]octanediyl, C₆H₄, azaphenylene; A1 = (un)substituted decahydronaphthalene-2,6-diyl, 4,4'-bicyclohexanediyl, cyclohexylethylcyclohexane-4,4'-diyl, cyclohexylethylcyclohexene-4,4'-diyl; A2 = A or A1; E = (un)substituted CH:CH; Z1, Z2 = CH₂CH₂, CH₂CHF, CHFCH₂, CHFCHF, CF₂CH₂, CH₂CF₂, CF₂CHF, CHFCH₂, CF₂CF₂, CH:CH, CF:CH, CH:CF, CF:CF, OCH₂, CH₂O, CF₂O, OCF₂, CO₂, O₂C, CHCNCH₂, CH₂CHCN, bond; Q = (un)substituted p-C₆H₄, azaphenylene, 1,4-cyclohexanediyl, oxa cyclohexane-1,4-diyl, thiacyclohexane-1,4-diyl, 1,4-cyclohexenediyl, bicyclo[2.2.2]octane-1,4-diyl; k, n, o = 0, 1; m, p = 0-2] were prepared by treating an organometallic compound R1A0kZ1mA1M [M = MgCl, MgBr, MgI, MnCl, MnBr, MnI, ZnCl, ZnBr, ZnI, ZnAlZ1mAkR1] with XEnQo(Z2A2)pR2 [X = Cl, Br, I, O3S(CF₂)0-10CF₃] in presence of a metal catalyst. The procedure is used advantageously for the production of liquid crystalline compds. Thus, 1-bromo-4-(4-propylcyclohexyl)cyclohexane was treated with Mg and 3,4,5-F3C6H2Br to give the bicyclohexane I.

ST

IT Liquid crystals

(procedure for the production of polycyclic compds.)

IT 83838-64-6P 142400-92-8P 143361-58-4P 324754-79-2P 477557-79-2P
477557-80-5P **477557-84-9P**

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(procedure for the production of polycyclic compds.)

IT 78-94-4, 3-Buten-2-one, reactions 110-91-8, Morpholine, reactions
348-61-8, 1-Bromo-3,4-difluorobenzene 593-60-2, Bromoethylene
623-00-7, 4-Bromobenzonitrile 40649-36-3, 4-Propylcyclohexanone
46310-14-9, trans,trans-Bicyclohexane-4,4'-diol 105942-08-3,
4-Bromo-2-fluorobenzonitrile 123843-67-4, 4-Bromo-2,6-
difluorobenzonitrile 138526-69-9, 1-Bromo-3,4,5-trifluorobenzene
477557-78-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(procedure for the production of polycyclic compds.)

IT 82254-86-2P 324754-77-0P 326796-25-2P 363619-23-2P 477557-81-6P
477557-82-7P 477557-83-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(procedure for the production of polycyclic compds.)

IT 157453-53-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(procedure for the production of polycyclic compds.)

IT **477557-84-9P**

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(procedure for the production of polycyclic compds.)

RN 477557-84-9 CAPLUS

CN Benzonitrile, 4-[(trans,trans)-4'-ethenyl[1,1'-bicyclohexyl]-4-yl]-2,6-
difluoro- (9CI) (CA INDEX NAME)

Relative stereochemistry.

